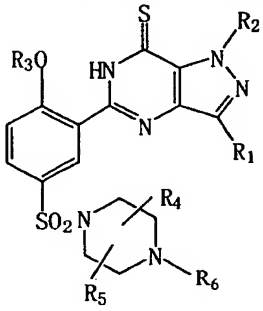
Claims:

1. Pyrazolopyrimidinethione derivatives having the structure of formula I :



I

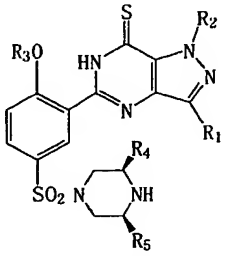
Wherein: R_1, R_2, and R_3 are same or different, and independently are alkyl having 1-6 carbon atoms, alkyl having 1-6 carbon atoms in which at least one hydrogen atom is substituted by alkoxy having 1-6 carbon atoms or cycloalkyloxy having 3-6 carbon atoms, alkenyl having 2-6 carbon atoms, or aryl having 6-10 carbon atoms;

R_4 is alkyl having 1-6 carbon atoms, alkenyl having 2-6 carbon atoms, alkoxy having 1-6 carbon atoms, cycloalkyloxy having 3-6 carbon atoms, or aryl having 6-10 carbon atoms;

R_5 is hydrogen, alkyl having 1-6 carbon atoms, alkenyl having 2-6 carbon atoms, alkoxy having 1-6 carbon atoms, cycloalkyloxy having 3-6 carbon atoms, or aryl having 6-10 carbon atoms;

R_6 is hydrogen, alkyl having 1-6 carbon atoms, alkenyl having 3-6 carbon atoms, cycloalkyl having 3-8 carbon atoms, or alkyloyl having 1-6 carbon atoms.

2. The pyrazolopyrimidinethione derivatives according to claim 1, characterized in that: said derivatives have the structure of formula II,



II

Wherein, R_1, R_2, R_3, R_4, and R_5 dependently are alkyl having 1-6 carbon atoms.

3. The pyrazolopyrimidinethione derivatives according to claim 1, wherein said pyrazolopyrimidinethione derivatives are:

5-[2-methoxy-5-(cis-3,5-dimethylpiperazin-1-sulfonyl)phenyl]-1-methyl-3-n-propyl-1,6-dihydro-7H -pyrazolo[4,3-d]pyrimidin-7-thione;

5-[2-ethoxy-5-(cis-3,5-dimethylpiperazin-1-sulfonyl)phenyl]-1-methyl-3-n-propyl-1,6-dihydro-

7H -pyrazolo[4,3-d]pyrimidin-7-thione;

5-[2-propoxy-5-(cis-3,5-dimethylpiperazin-1-sulfonyl)phenyl]-1-methyl-3-n-propyl-1,6-dihydro -7H-pyrazolo[4,3-d]pyrimidin-7-thione;

5-[2-methoxy-5-(cis-3,5-dimethylpiperazin-1-sulfonyl)phenyl]-1-ethyl-3-n-propyl-1,6-dihydro-7H -pyrazolo[4,3-d]pyrimidin-7-thione;

5-[2-ethoxy-5-(cis-3,5-dimethylpiperazin-1-sulfonyl)phenyl]-1-ethyl-3-n-propyl-1,6-dihydro-7H -pyrazolo[4,3-d]pyrimidin-7-thione; or

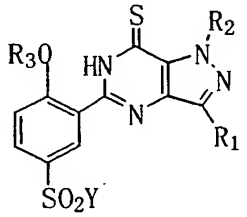
5-[2-propoxy-5-(cis-3,5-dimethylpiperazin-1-sulfonyl)phenyl]-1-ethyl-3-n-propyl-1,6-dihydro-7 H -pyrazolo[4,3-d]pyrimidin-7-thione.

4. The salts of pyrazolopyrimidinethione derivatives according to any one of claims 1-3, characterized in that: said salts are salts of organic acids or inorganic acids.

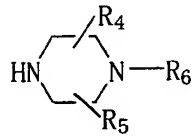
5. The salts according to claim 4, characterized in that: said salts of organic acids are citrate, fumarate, oxalate, malate, lactate, camphorsulfonate, p-toluenesulfonate, or methanesulfonate; said salts of inorganic acids are salts of haloid acid, sulfate, phosphate, or nitrate.

6. The solvates of the compounds according to any one of claims 1-5, characterized in that: the solvents are water, ethanol, or methanol.

7. A method for preparing the pyrazolopyrimidinethione derivatives of claim 1, comprising reacting the compound of formula III with the compound of formula IV to give said pyrazolopyrimidinethione derivatives;



(III)



(IV)

Wherein: in the compounds of formulas III and IV, R_1, R_2, and R_3 are same or different, and independently are alkyl having 1-6 carbon atoms, alkyl having 1-6 carbon atoms in which at least one hydrogen atom is substituted by alkoxy having 1-6 carbon atoms or cycloalkyloxy having 3-6 carbon atoms, alkenyl having 2-6 carbon atoms, or aryl having 6-10 carbon atoms;

R_4 is alkyl having 1-6 carbon atoms, alkenyl having 2-6 carbon atoms, alkoxy having 1-6 carbon atoms, cycloalkyloxy having 3-6 carbon atoms, or aryl having 6-10 carbon atoms;

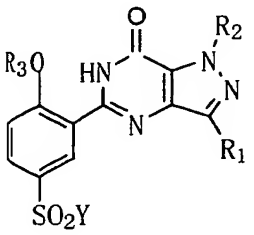
R_5 is hydrogen, alkyl having 1-6 carbon atoms, alkenyl having 2-6 carbon atoms, aryl having 6-10 carbon atoms, or alkyloyl having 1-6 carbon atoms;

R_6 is hydrogen, alkyl having 1-6 carbon atoms, alkenyl having 3-6 carbon atoms, cycloalkyl having 3-8 carbon atoms, or alkyloyl having 1-6 carbon atoms; and

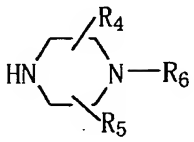
Y is Cl, F, Br, or I.

8. The method according to claim 7, characterized in that: the solvents used in the reaction are chloroform, tetrahydrofuran, dioxane, ethanol, 1,2-dimethoxyethane, xylene, toluene, dimethyl sulfoxide, or triethylamine.

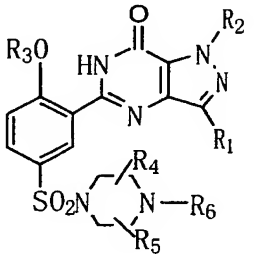
9. A method for preparing the pyrazolopyrimidinethione derivates of claim 1, comprising firstly reacting the compound of formula V with the compound of formula IV to give the compound of formula VI, and then sulfurizing said compound of formula VI to give said pyrazolopyrimidinethione derivatives;



(V)



(IV)



(VI)

Wherein: in the compounds of formulaIV, V, and VI, R_1, R_2, and R_3 are same or different, and independently are alkyl having 1-6 carbon atoms, alkyl having 1-6 carbon atoms in which at least one hydrogen atom is substituted by alkoxy having 1-6 carbon atoms or cycloalkyloxy having 3-6 carbon atoms, alkenyl having 2-6 carbon atoms, or aryl having 6-10 carbon atoms;

R_4 is alkyl having 1-6 carbon atoms, alkenyl having 2-6 carbon atoms, alkoxy having 1-6 carbon atoms, cycloalkyloxy having 3-6 carbon atoms, or aryl having 6-10 carbon atoms;

R_5 is hydrogen, alkyl having 1-6 carbon atoms, alkenyl having 2-6 carbon atoms, aryl having 6-10 carbon atoms, or alkyloyl having 1-6 carbon atoms;

R_6 is hydrogen, alkyl having 1-6 carbon atoms, alkenyl having 3-6 carbon atoms, cycloalkyl having 3-8 carbon atoms, or alkyloyl having 1-6 carbon atoms; and

Y is Cl, F, Br, or I.

10. The method according to claim 9, characterized in that: the solvent for sulfurization reaction is tetrahydrofuran, dioxane, 1,2-dimethoxyethane, ethanol, xylene, toluene, dimethyl

sulfoxide, or triethylamine.

11. The method according to claim 10, characterized in that: the sulfurating reagent for said sulfurization is phosphorus pentasulfide or 2,4-Bis(p-methoxyphenyl)-1,3-dithia-2,4-diphosphetane-2,4-disulfide, and derivatives thereof, and the temperature is –20-200℃.

12. A method for preparing the salts of pyrazolopyrimidinethione derivatives of claim 4, comprising reacting said pyrazolopyrimidinethione derivatives of claim 1 with the pharmaceutically acceptable acids to give said salts.

13. A pharmaceutical comprising the pyrazolopyrimidinethione derivatives of claim 1, or 2, or 3 as the active ingredient, for preventing and/or treating impotence.

14. A pharmaceutical comprising the pyrazolopyrimidinethione derivatives of claim 1, or 2, or 3 as the active ingredient, for preventing and/or treating frigidity.

15. A pharmaceutical comprising salts of the pyrazolopyrimidinethione derivatives of claim 4 or 5 as the active ingredient, for preventing and/or treating impotence.

16. A pharmaceutical comprising salts of the pyrazolopyrimidinethione derivatives of claim 4 or 5 as the active ingredient, for preventing and/or treating frigidity.

17. A pharmaceutical comprising solvates of the pyrazolopyrimidinethione derivatives of claim 6 as the active ingredient, for preventing and/or treating impotence.

18. A pharmaceutical comprising solvates of the pyrazolopyrimidinethione derivatives of claim 6 as the active ingredient, for preventing and/or treating frigidity.

19. A pharmaceutical comprising the pyrazolopyrimidinethione derivatives of claim 1, or 2, or 3, or salts or solvates thereof, as the active ingredient for preventing and/or treating impotence and frigidity.

20. The pharmaceutical according to claim 19, characterized in that: said pharmaceutical further comprises a pharmaceutically acceptable diluent or carrier.